

Safeguarding the United States From Highly-Pathogenic Avian Influenza (HPAI): USDA Actions, Plans, and Capabilities for Addressing the Bird Flu Threat

In 2003–04, outbreaks of HPAI (the H5N1 strain) occurred among poultry in nine countries in Asia, including Cambodia, China, Indonesia, Japan, Laos, Malaysia, South Korea, Thailand, and Vietnam. As a result, more than 140 million birds in these countries either died or were destroyed. In 2005, the disease reappeared in Cambodia and Indonesia. In addition, North Korea reported an avian influenza outbreak of type H7 that has resulted in high bird mortality. Human infections and several deaths, due to H5N1, have been reported in Cambodia, Thailand, and Vietnam.

The U.S. Department of Agriculture (USDA) recognizes that HPAI (H5N1) poses a significant threat to agriculture and human health. Accordingly, USDA's Animal and Plant Health Inspection Service (APHIS) is taking steps to safeguard against the introduction of HPAI (H5N1) into the United States. APHIS also continues to work closely with its Federal, State, and Tribal partners and industry stakeholders to have effective and coordinated emergency response plans ready should an outbreak of HPAI (H5N1) occur in the United States.

Any outbreak of HPAI, regardless of the strain, could have very serious economic and health impacts on the U.S. poultry industry, as well as on public health.

The United States is the world's largest producer and exporter of poultry meat and the second-largest egg producer. Total U.S. poultry production was valued at \$23.3 billion in 2003. Broiler production was valued at \$15.2 billion, followed by eggs at \$5.3 billion, and turkeys at \$2.7 billion. An outbreak of HPAI could result in significant poultry production losses in affected areas due to quarantine and bird depopulation activities.

The United States is the world's largest exporter of broilers and turkeys. In 2003, U.S. broiler exports were valued at \$1.5 billion and turkey exports at \$265 million. In the event of an HPAI outbreak in the United States, our foreign trading partners would impose a ban on all U.S. exports of poultry and poultry products.

As of April 4, 2005, 49 human deaths were reported in HPAI (H5N1)-affected countries in Asia. An outbreak in the United States could raise public health concerns about food safety. Without following proper food handling, hygiene, and normal cooking practices, HPAI (H5N1) virus can survive on contaminated raw poultry meat, on contaminated surfaces of eggs, and within the albumen and yolk of eggs. However, it is important to note that there is no evidence that people have been infected by HPAI (H5N1) through the consumption of eggs, egg products, or well-cooked poultry meat.

Preventing HPAI in the United States

As a primary safeguard against the introduction of HPAI (H5N1) into the United States, APHIS maintains trade restrictions on the importation of poultry and poultry products from affected countries. In many of these countries, APHIS had prior poultry and poultry product import restrictions in place because they were also known to have exotic Newcastle disease (END). The import restrictions targeted against END also effectively mitigate HPAI risk. These restrictions include

- Prohibiting the importation of live birds and hatching eggs from H5N1 affected countries.
- Requiring imports of poultry products from East and Southeast Asia be processed or cooked in accordance with a USDA permit prior to importation to lower the risk of HPAI contamination to negligible levels.
- Requiring all imported birds be quarantined at a USDA bird-quarantine facility and be tested for the avian influenza virus before entering the country. This requirement now covers returning U.S.-origin pet birds.

APHIS has developed a risk assessment that specifically considers the threat to the United States of HPAI introduction from Southeast Asia. This assessment is helping APHIS to identify and closely monitor pathways that are vulnerable to potential HPAI (H5N1) introduction. APHIS has alerted the U.S. Department of Homeland Security to be especially vigilant in performing agricultural inspections for prohibited products at U.S. ports-of-entry handling passengers and cargo from Asia. Additionally, APHIS has increased its monitoring of domestic commercial markets for illegally smuggled poultry and poultry products.

APHIS is working closely with international organizations like the World Organization for Animal Health (OIE) and the United Nations' Food and Agriculture Organization (FAO) and World Health Organization (WHO) to assist HPAI-affected countries and other neighboring Asian-Pacific countries with disease prevention, management, and eradication activities. By helping these countries prepare for, manage, or eradicate HPAI (H5N1) outbreaks, APHIS can reduce the risk of the disease spreading from overseas to the United States.

Preparedness in the Event of an Outbreak

In the event that HPAI prevention efforts fail to stop the introduction of the disease into this country, APHIS is working diligently to prepare for a potential outbreak. Preparations include coordinating efforts and information, developing response strategies, monitoring for the presence of HPAI, heightening disease awareness, and having resources and personnel readily available.

APHIS established an interagency working group to address HPAI preparedness and response issues. The group includes representatives from several Federal agencies and international animal- and public-health organizations. This group communicates regularly electronically and receives HPAI (H5N1) status updates.

USDA agricultural attachés with APHIS' International Services program and USDA's Foreign Agricultural Service are closely monitoring the HPAI situation in Asia and routinely report new developments.

APHIS reviewed and provided input to the U.S. Department of Health and Human Services' Centers for Disease Control and Prevention (CDC) on their Pandemic Influenza Response and Preparedness Plan. APHIS provided guidance concerning its role in animal health and wildlife disease management. APHIS also collaborated with CDC to draft recommendations to help prevent the transmission of HPAI to animal-disease outbreak-response workers.

APHIS' Veterinary Services (VS) program is developing a policy to ensure the protection of personnel involved in HPAI control and eradication activities.

APHIS officials at VS' Center for Veterinary Biologics are considering options for the use of HPAI vaccines on poultry in the event of an outbreak in the United States. APHIS administers an Avian Influenza Vaccine Bank.

VS maintains a national network of personnel to monitor for and respond to outbreaks of HPAI and other foreign animal diseases (FADs). This network includes:

- An Area Veterinarian-in-Charge (AVIC) assigned to a State or, in some cases, two or more States, to administer VS operations and work with State veterinary officers.
- Fourteen Area Emergency Coordinator (AEC) positions to help support and improve State and Tribal preparedness and response to FAD emergencies. The AECs are strategically placed throughout the United States.
- A cadre of more than 40,000 certified private veterinary practitioners to report any suspected FADs to Federal or State officials.
- Four hundred and fifty specially trained animal-disease diagnosticians from State, Federal, and military ranks who are highly trained in diagnosing HPAI and other FADs.

APHIS maintains world-class diagnostic capabilities through VS' National Veterinary Services Laboratories (NVSL). NVSL are also supported by VS' National Animal Health Laboratory Network, which provides additional FAD diagnostic capabilities at USDA approved State and private animal health diagnostic labs.

APHIS has been conducting a multilevel outreach and education campaign called "Biosecurity for the Birds" that provides disease and biosecurity information to backyard poultry producers. The campaign also encourages producers to report sick birds, thereby increasing APHIS' FAD surveillance opportunities in poultry.

Response to a Potential Outbreak

If an HPAI (H5N1) outbreak should occur in the United States, APHIS has the FAD management infrastructure required to conduct an emergency response program. The response would take place at the local level in accordance with the National Animal Health Emergency Management System's guidelines for highly contagious disease.

If the scope of the HPAI (H5N1) outbreak is beyond APHIS' and the affected State's immediate resource capabilities, additional resources can be obtained through the following mechanisms:

- Under the National Response Plan's Emergency Support Function #11, APHIS can implement an integrated Federal, State, Tribal, and local response to an FAD or zoonotic disease outbreak. This mechanism ensures that animal-health emergencies are supported in coordination with the emergency support function that covers public health and medical services.
- APHIS can request additional animal health personnel through the National Animal Health Emergency Response Corps. This Corps is composed of private veterinarians and animal health technicians who are able to assist on short notice.

APHIS would organize its response to an HPAI outbreak using the incident command system (ICS) prescribed by the National Incident Management System. Key APHIS leadership roles under ICS would include:

- The incident commander managing emergency response operations in the field, and
- The National Incident Coordinator, at the APHIS Emergency Operations Center in Riverdale, MD, providing national support to the incident commander.

This ICS organizational structure can be easily incorporated into a larger, Federal multi-agency response if necessary.

Upon detection of HPAI (H5N1) in poultry, APHIS would quickly notify the CDC to initiate their involvement, in coordination with State and local health departments, in efforts to minimize disease transmission from birds to humans. If necessary, CDC would activate the Pandemic Influenza Response Plan.

Recovery From an Outbreak

Following the eradication of an outbreak of HPAI in the United States, APHIS would play a key role in supporting the recovery of the poultry industry by working with foreign trading partners to reopen lost overseas markets to U.S. poultry and poultry products.

APHIS is also authorized to offer producers indemnity for losses directly related to HPAI and HPAI eradication activities. Funding to support HPAI indemnity would be available through the USDA's Commodity Credit Corporation.

Conclusion

APHIS is taking appropriate measures to safeguard against, plan for, and, if necessary, respond to an outbreak of HPAI (H5N1) in the United States. These efforts not only protect the health and value of the U.S. poultry industry from HPAI but also reduce the risk of a potential human health emergency in the United States.

Additional Information

For more information about avian influenza or emergency preparedness, contact

USDA, APHIS, VS
Emergency Programs
4700 River Road, Unit 41
Riverdale, MD 20737-1231
Telephone (301) 734-8073
Fax (301) 734-7817

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.